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- (71) Applicant (for all designated States except US):  
**GEORGETOWN UNIVERSITY** [US/US]; 37th and O  
Streets, NW, Washington, DC 20057-1408 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **WOLF, Christian**  
[DE/US]; 4219 31st Street North, Arlington, VA 22207  
(US). **MEI, Xuefeng** [CN/US]; 1530 North 12th Street,  
Apt. 206, Arlington, VA 22209 (US).
- (74) Agents: **GORDON, Dana, M.** et al.; Patent Group, Foley  
Hoag LLP, 155 Seaport Boulevard, Seaport World Trade  
Center West, Boston, MA 02210-2600 (US).

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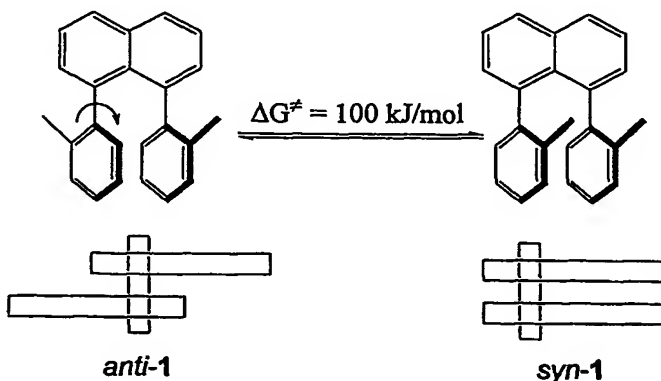
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(54) Title: CHIRAL 1,8-DIARYLNAPHTHALENES, METHODS OF MAKING THEM, AND THEIR USE AS SENSORS



(57) Abstract: One aspect of the invention relates to 1,8-diarylnaphthalene compounds. In certain embodiments, a compound of the invention is an *N*-oxide of a 1,8-diarylnaphthalene. In certain embodiments, the aryl group is an optionally substituted acridyl group. In certain embodiments, a compound of the invention is a single stereoisomer. In certain embodiments, a compound of the invention is a single enantiomer. Another aspect of the present invention relates to a method of detecting the presence of an analyte in a sample by monitoring the fluorescence of a compound of the invention in a sample. In certain embodiments, the analyte is a metal ion. Another aspect of the present invention relates to a method of determining the enantiomeric purity of an analyte by monitoring the fluorescence of a compound of

the invention in the presence of the analyte. In certain embodiments, the analyte is a compound that is capable of hydrogen bonding.